Marion Road Trunk Sanitary Sewer Project
Rochester, MN

Alternative Urban Areawide Review and Mitigation Plan
Update #2

December 2014

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PART I - MARION ROAD TRUNK SANITARY SEWER PROJECT
ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE #2

The City of Rochester completed an Alternative Urban Areawide Review (AUAR) in 2002 in conjunction with the extension of sanitary sewer into Marion Township. The 2002 AUAR consisted of two documents: the *Draft Alternative Urban Areawide Review and Mitigation Plan for the Marion Road Trunk Sanitary Sewer Project* (April 2002) and the *Final Alternative Urban Areawide Review and Mitigation Plan for the Marion Road Trunk Sanitary Sewer Project* (May 2002; adopted on 6/17/02 by the Common Council of the City of Rochester, acting as the designated Responsible Governmental Unit); henceforth the 2002 AUAR. The *Marion Road Trunk Sanitary Sewer Project Alternative Urban Areawide Review and Mitigation Plan Update #1* was prepared in conjunction with the environmental review process for the extension of 20th St SE. It was adopted by the City Council on September 16, 2009 and incorporates the original AUAR documents by reference. Unlike the original AUAR and Update #1, the AUAR Update #2 is not affiliated with any major construction projects. The same format and principles that were used to prepare the 2002 AUAR and the 2009 AUAR Update #1 will be used in Update #2, which hereby incorporates the 2002 and 2009 documents by reference. Update #2 again utilizes the Environmental Assessment Worksheet (EAW) format as modified by Environmental Quality Board (EQB) in the *Recommended Content and Format for Alternative Urban Areawide Review Documents* (September 2008). Responses to the questions are only provided when there has been a change since the 2009 AUAR Update #1. Wherever "no changes" is indicated, please refer to the original AUAR documents and the Final Update #1 as listed above to review the earlier responses. These documents are posted at:
http://rochestermn.gov/departments/public-works/projects-and-studies/construction-activity/future .

1.0 PROJECT TITLE

Marion Road Trunk Sanitary Sewer Project; Rochester, MN; Alternative Urban Areawide Review and Mitigation Plan Update #2; henceforth AUAR Update #2. The AUAR Update #2 covers the geographic area served by the Marion Road trunk sanitary sewer in SE Rochester (no change; see Figure 1).

2.0 PROPOSER - CITY OF ROCHESTER

City of Rochester (no change)

3.0 RESPONSIBLE GOVERNMENTAL UNIT

City of Rochester (no change)

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4.0 REASON FOR AUAR UPDATE PREPARATION

This document has been prepared to fulfill the requirements of Minnesota Rules, 4410.3610, Subp. 7, which require AUAR updates under certain circumstances. Since the completion of the 2009 AUAR Update #1:

- ✓ Full build out of the project area is not complete,
- ✓ There have been no comprehensive plan amendments that would allow an increase in development over the levels assumed in the environmental analysis document,
- ✓ Total development within the area has not exceeded the maximum levels assumed in the environmental analysis document,
- ✓ Development within any subarea delineated in the environmental analysis document has not exceeded the maximum levels assumed for that subarea in the document,
- ✓ A substantial change in public facilities intended to service development in the area has not been proposed or implemented that would result in increased adverse impacts on the environment,
- ✓ Development or construction of public facilities has not occurred on a schedule other than that assumed in the initial AUAR and Plan for Mitigation, so as to substantially increase the likelihood or magnitude of potential adverse environmental impacts or to substantially postpone the implementation of identified mitigation measures,
- ✓ No new information has been received that demonstrates that important assumptions or background conditions used in the analysis presented in the environmental analysis document are substantially in error and that environmental impacts have consequently been substantially underestimated, and
- ✓ No other substantial changes have occurred, as determined by the City of Rochester, that may affect the potential for, or magnitude of, adverse environmental impacts.

Accordingly, the City of Rochester is required to update the 2009 AUAR Update #1 five years after it was adopted by the City.

Minnesota Rules Ch. 4410.3610, subp. 7 further requires that the environmental analysis document and Plan for Mitigation must be revised by preparing, distributing, and reviewing revised documents in accordance with subpart 5, items D to H, except that the documents must be distributed to all persons on the EAW distribution list under part 4410.1500.

5.0 PROJECT LOCATION

County: Olmsted County **City/Township**: Marion Township

Sections: S½ 4, S½ 7,8,9, N½ 18, 17, 16, NE¼ 19, N½ 20, 21, 22, 28, W½ 23

Township: 106N **Range:** 13W

See Figure 1 – AUAR Project Area

6.0 DEVELOPMENT SCENARIO DESCRIPTION - Provide a project summary of 50 words or less to be published in the *EQB Monitor*.

The City of Rochester has prepared the AUAR Update #2 to its 2002 Marion Road Trunk Sanitary Sewer Alternative Urban Areawide Review and Mitigation Plan and its 2009 AUAR Update #1.

Development Scenario:

No change. One hypothetical development scenario was adopted by the City Council on January 23, 2002. The scenario does not preclude or supersede the City and County official plans, ordinances, and development process, or change opportunities for interested citizens to participate in the development process. Table I-1, below, provides an updated comparison of 2001, 2006, 2013 and ultimate development based on the hypothetical development scenario. It is important to remember that the hypothetical development scenario reflects the highest reasonable and feasible density that could be expected to occur in the project area given the designated land use patterns and the logical zoning districts that would apply to the area upon its annexation into the City of Rochester. The Hypothetical Development Scenario is illustrated in Figure 3.

TABLE I-1
2001, 2006, 2013 AND ULTIMATE LAND USE
BASED ON THE HYPOTHETICAL DEVELOPMENT SCENARIO

Land Use Category	2001 Land Use (Developed areas in acres)	Revised Land Use (acres) with Land Use and Zoning Changes	Changes from 2002 through 2006 (Developed areas in acres)	2006 Total Land Use (1) (Developed areas in acres)	Changes from 2007 through 2013 (Developed areas in acres)	2013 Total Land Use (1) (Developed areas in acres)	Hypothetical Development Scenario Land Use (full build out in acres)
Low Density Residential	893	876	+215	1,091	+13	1104	3,154*
Commercial & Industrial	39	56	+18	74	+16	90	110
Park and Open Space	33	33	+210	243	+14.8	243	TBD**
Vacant/Agricultural/Undeveloped Area	2,440	2,440	-760	1,680	-124	1556	0
Suburban Development Area	0	0	+311	311	+84	395	108
Transportation (road rights-of-way)	377	377	0	377	+11	388	31
Environmental Features (floodways, water bodies, steep slopes, high constraint features)	534	534	+6	540**	540	540	534
Total Acres	4,316	4,316	N/A	4,316	N/A	4316	4,316

(1) All land use evaluations were based on conditions existing as of December 31, 2013.

* This figure was calculated to include lands that would be dedicated for park needs and road right-of-way, as well as areas that may be used as small commercial nodes.

** The additional 6 acres is attributed to the addition of nine new storm water ponds.

Since 2002, there has not been a change in the hypothetical development scenario applied to the entire project area, even though there have been minor adjustments to the anticipated acres zoned for residential, commercial, and industrial development (see Table I-1 and Section 9.0). Nor have there been changes to the sanitary sewer or water main plans or the staging plans for infrastructure installation.

7.0 PROJECT MAGNITUDE DATA

The following table compares the development status in the Project Area in 2001, at the end of 2006, and at the end of 2013, along with the projected ultimate development totals projected in the initial AUAR.

TABLE I-2
PROJECT MAGNITUDE DATA
(Total Project Acreage = 4,315 Acres)

	Projected Ultimate Development Between 2002 – Full Build Out*	New Development 2002-2006	New Development 2007-2013	Remaining Development Potential
Number of Residential Units	6,480 new dwelling units	163 du's	54 du's	6263 du's
Single-Family Detached	3,160 new dwelling units	128 du's	46 du's	2986 du's
Multi-Family Attached	3,320 new dwelling units	35 du's	8 du's	3277du's
Non-Residential Square Footage (1)	711,260 new sq. ft.	23,072 sq. ft.	0 sq. ft.	688,188 sq. ft.

* New dwelling units anticipated between Spring 2002 and ultimate development

du's = dwelling units

(1) Assumes two neighborhood commercial nodes at 8 to 10 acres in size each. The exact location of these nodes is dependent upon specific development plans.

8.0 PERMITS AND APPROVALS REQUIRED

List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

The listings for known permits and approvals presented in Table 2-8 of the 2002 AUAR are still applicable, along with an expanded Chapter 59 of the Rochester Code of Ordinances that increases protection of wetlands located within the geologic setting known as the Decorah Edge. Additionally, the Rochester Public Works Department issues other minor permits for the construction of sidewalks and driveways and the installation of utilities.

The listings for financial assistance presented in Table 2-9 of the 2002 AUAR are still applicable. In addition, the City adopted a Storm Water Utility Fee in 2004 to fund the implementation of the City's storm water management program and its Municipal Separate Storm Sewer System permit activities.

9.0 LAND USE

Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

There were no new residential development proposals within the AUAR Project Area from 2007 – 2013. AUAR Update #1 reported on the Land Use Plan amendment and rezoning to M-3 of the Priebe Horse Stables at 2725 Marion Road SE, but there has been no reuse of the property thus far. Between 2007 and 2013, only 46 new single-family residential dwelling units were constructed within formerly approved residential developments within the project area.

Between 2007 and 2013, no individual amendments to the Olmsted County General Land Use Plan were made that affect the AUAR Project Area. A 2011 update to the Plan, however, amended the Urban Service Area boundaries (those areas expected to be annexed within 25-50 years) to align more closely with the AUAR boundary. There have been zone changes in this area since 2006; however, they have been consistent with the land use designation. Therefore, the hypothetical development scenario for the total project area has not been affected. See Figures 2 (Olmsted County General Land Use Plan) and 3 (Hypothetical Development Scenario).

10.0 COVER TYPES

Estimate the acreage of the site with each of the following cover types before and after development.

Land cover mapping has not been systematically updated since 2004 so no new map is provided. Estimated land cover changes that have happened as a result of new development since 2006 are shown in Table I-3 below. The new development consists of 46 new homes and the improvement of Pinewood Road. These changes are consistent with the expected development under the Hypothetical Development Scenario.

TABLE I-3
CHANGES IN COVER TYPE

Cover Type	Change
Wetlands (by Type)	Type 2 wetlands decreased by 0.88 acres (mitigated outside the AUAR Project Area)
Watercourses	None
Lakes	None
Woodlands (by class)	Decreased by 11 acres
Grassland/Turf	Increased by 81.43 acres
Cropland	Decreased by 84 acres
Impervious Area	Increased by 11acres (road improvement, driveways, sidewalks & homes)

No developments other than those projected in the AUAR and AUAR Update #1 have been proposed.

11.0 FISH, WILDLIFE AND ECOLOGICALLY SENSITIVE RESOURCES

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

There are no known changes to fish and wildlife resources and habitat in undeveloped areas. Development proposals resulted in the submittal of 2 wetland applications within the AUAR Project Area between 2006 and 2013. The 0.88 acres of impacted wetlands were mitigated outside of the AUAR Project Area.

Two wetlands within the AUAR Project Area have been designated as calcareous fens by the Department of Natural Resources (DNR) in 2004: the Joyce Park Fen and the Marion 8 Fen. Minnesota Rules 7050.0180 identify calcareous fens as "outstanding resource value waters" affording them special protection. Developments with the potential to impact calcareous fens are required to consult with the DNR to develop measures for preventing adverse impacts to the fens, including storm water management methods. Depending on the potential and severity of the impacts, project sponsors may be required to develop and submit a Fen Management Plan to the DNR and receive approval before construction can begin. At this time, there are no new and expanded discharges to these fens; therefore, Fen Management Plans are not yet required.

As anticipated in the hypothetical development scenario, development between 2007 and 2013 has also resulted in the loss of 11 acres of woodland habitat and the creation of 11 acres of grassland habitat and their associated wildlife resources as a result of the extension of 20th St SE.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? _x_ Yes __ No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the MnDNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number No Change**. Describe measures to minimize or avoid adverse impacts.**

For the initial AUAR, the City purchased the electronic database containing the MnDNR Natural Heritage Program (NHP) data. As advised by DNR staff at that time, a Natural Heritage Information System (NHIS) request and NHP review by DNR were therefore not necessary because the City conducted the review instead. The resultant information was presented in the initial AUAR's Item 11 and Figure I-4. For the AUAR Update #2, the City again obtained MnDNR's NHP data to review current records of rare species and rare natural resource features in the project area. The current NHP data does not appear to add any new species to the data acquired for AUAR Update #1. It does add one new record for presence of Wood Turtles; that occurrence, however, is in the same area as all of the previously recorded sitings noted in the preparation of AUAR Update #1 (see below). The City is aware that the long-eared bat (*Myotis septentrionalis*) is listed as a special concern species in neighboring counties and that status may be extended to Olmsted County in the future.

As a condition of the Colonial Oaks plat, the arch pipe under Gavin Lane and other new culverts under roadways were required to be flat-bottomed culverts to facilitate Blanding's turtle (*Emydoidea blandingii*) migration.

Two records of Blue racer snakes were shown in the project area. The Blue racer snake (*Coluber constrictor*) was noted as being a state-listed species of special concern, which are not protected under current regulations. The Blue racer can occupy a variety of habitats in the deciduous forest regions of Minnesota, including forested hillsides, bluff prairies, grasslands, and open woods. Woodland margins and field edges are the preferred summer habitats (Coffin and Pfannmuller, 1988). Blue racer snakes live in a variety of open dry habitats, such as: brushy areas along the edges of deciduous woodlands, grass prairies, bluff prairies, and old fields. Because these snakes primarily hunt by sight, they avoid areas of dense vegetation. Blue racers overwinter in mammal burrows, rock crevices, gravel banks, stone walls, and abandoned wells. They may share these winter homes with other racers, Timber rattlesnakes, Rat snakes, Gopher snakes, and common Garter snakes. The destruction and loss of habitat are the greatest threat to amphibian and reptile populations and is especially critical to rare species. Pesticide accumulation, hunting, and over-collecting also pose a threat. As noted above, development between 2007 and 2013 has resulted in the loss of 11 acres of woodland habitat, with the commensurate creation of 11 acres of grassland habitat; both of which are the habitat types used by Blue racer snakes.

Storm water management requirements associated with new development provide water quality protection that is protective of black redhorse habitat. This is a special concern fish species found during past fish surveys from the lower reach of Bear Creek; as such it is not protected under current regulations.

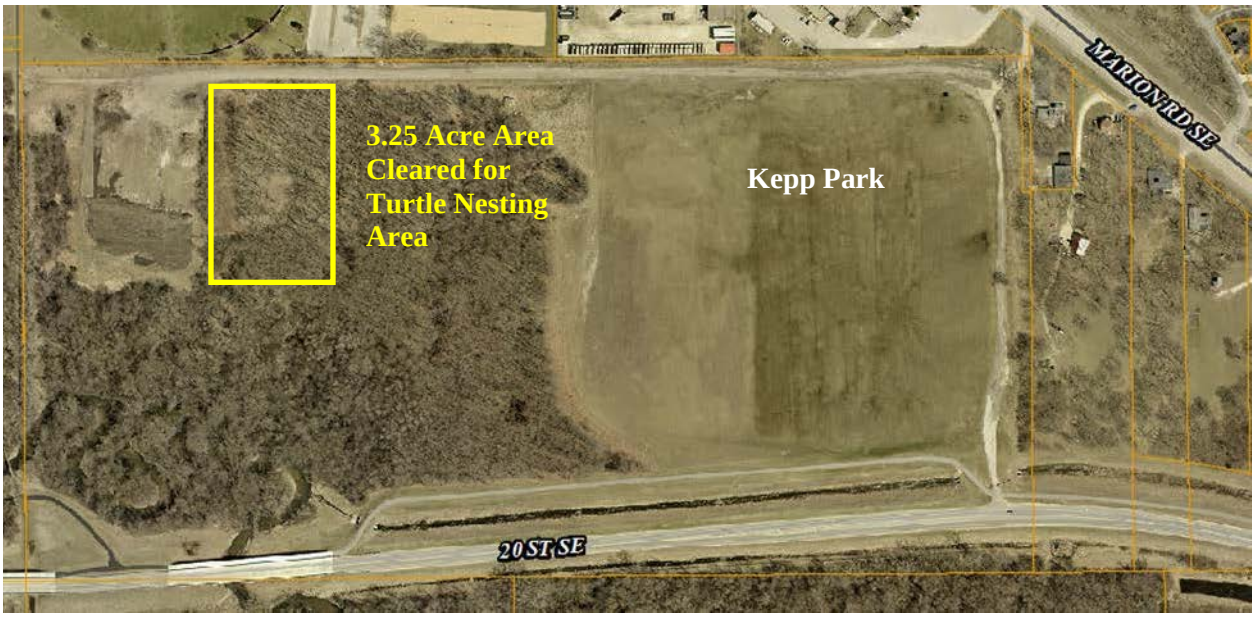
During the preparation of the AUAR Update #1, which served as the environmental review document for the City's extension of 20th St SE, the DNR identified the presence of Wood Turtles (*Clemmys insculpta*), a state-listed threatened species, along Badger Run and in a short section of Bear Creek near its confluence with Badger Run. According to the DNR staff, the confluence of Bear Creek, Badger Run and Willow Creek is an extremely important Wood Turtle habitat complex since these animals require streams, wooded riparian foraging areas, and either sandy cut banks, sand bars, or nearby sandy upland areas for nesting. The City's 2010/2011 extension of 20th St SE utilized a design that left the wooded areas within the Bear Creek and Willow Creek floodplains intact, with the exception of the 190-foot-wide, 1.1 mile-long street and bridge construction corridor. The selected construction design left a significant riparian buffer that varied in width from approximately 240 to 450 feet wide. Stream/woodland corridor connectivity was retained by virtue of the long, single-span bridges across

Willow and Bear Creeks that are needed to minimize floodplain impacts. The wooded portion of Kepp Park is not planned for recreational development, leaving from 300 to 450 feet of wooded buffer within the floodplain between the creeks and the active area of the park. (The wooded floodplain area is the steepest area of the property, with elevation changes of 6 to 8 feet from the stream to the upland areas.)

The street construction resulted in the loss of approximately 5.3 acres of woodland on parcel #67947 (see image below). The City needed to purchase a small portion of parcel #62328 to mitigate for Section 6(f) parkland impacts. It choose to purchase the entire parcel #62328 to acquire and protect 8.3 acres of the important riparian woodland to mitigate for the woodland lost due to road construction. This 14.8-acre parcel contains the confluence of Badger Run and Bear Creek in its southeastern corner and it will be retained as public open space, precluding the potential for urban development in this area. The purchase of this mitigation parcel and a 29.1 acre floodplain parcel purchased to facilitate the roadway construction brings the total City-owned acreage along Bear Creek, Willow Creek and Badger Run to 317.2 acres of permanent open space. It should be noted that parcel #75975 is the only remaining parcel along this segment of Bear Creek that is in private ownership. The entire parcel is within FEMA-designated Flood Zone and Flood Way boundaries, so the potential for future development on this parcel is extremely limited, thus supporting DNR's desire to protect this turtle habitat.

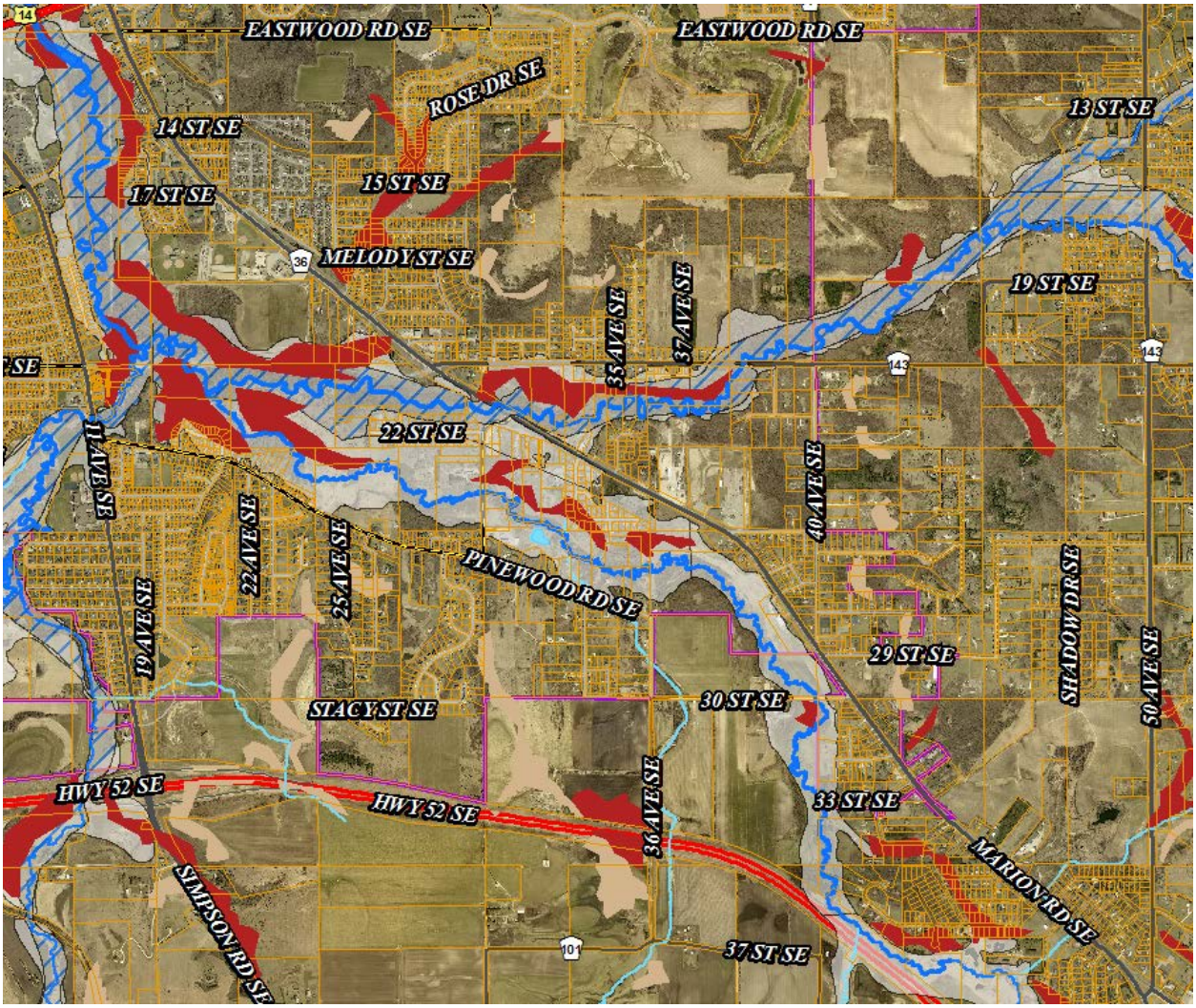
DNR encouraged the development of turtle nesting habitat to offset the future loss of the prairie within the eastern portion of Kepp Park when soccer fields are developed. Therefore, under the guidance of the City Forester, Wood Turtle nesting habitat was improved by selectively removing undesirable tree and shrub species in October 2010 from about 3.25 acres of scrubland in the northwest corner of Kepp Park, to create a more open, savannah-like wooded area. This work was completed in the area immediately east

of the former melon field, as shown in the image below. This area is outside the floodplain and adjacent to the wooded riparian buffer, which is the habitat type and connectivity needed for foraging and staging prior to nesting. This site is underlain by the Plainfield loamy sand, 0-6% slope (283B) and maintains a wooded buffer between it and the 20th St SE bike path. The City Park and Recreation Department reviews the site annually and provides long term vegetative maintenance to insure that the area retains a savannah-like opening. The City Council authorized the purchase of this property for the development of recreational fields on the east and preservation of open space on the west. This area is designated as recreation-open space in the City's Land Use Plan. It is still the Park Department's plan to create soccer fields in the eastern section in the future, so vegetative management of the created nesting area will continue.



As part of the 20th Street SE Connection Project, the City also installed a four-foot high chain-link fence on the south side of the roadway, one foot north of the right-of-way line. Along its entire length, 18-inch tall opaque slats were inserted into the chain-link mesh at ground level to reduce "see-though" visibility by the turtles, so as to discourage turtle transit onto the roadway from Bear Creek. This fence begins across from the park entrance road at the east end of Kepp Park and extends west for approximately 1,000 feet, across from the bike trail connection. This placement was chosen because it coincided with the open area of Kepp Park that might induce turtle movement into this area.

DNR has expressed its desire that the riparian corridors along Bear Creek and Badger Run remain intact with minimal urban/suburban development. At a minimum, a 350' buffer is recommended to be retained on both sides of the water courses. As can be seen in the following image, the riparian corridors are encompassed by FEMA-designated Flood Ways and Flood Zones (gray and gray & blue hatched areas). The brown areas indicate the presence of hydric soils, a strong indicator of the presence of wetlands. MN Shoreland Rules also apply to these streams, which are classified as Tributary Streams by the DNR. Existing floodplain, wetland and shoreland regulations already strongly limit the potential for development in these riparian areas.



DNR further recommends that roadway expansions occur outside the riparian corridors and that wildlife protection measures be utilized to reduce road mortality. Finally, DNR recommends that, whenever bridge construction projects occur, that the designs maintain the habitat connectivity of the riparian corridors. As was done on the City's 20th St SE extension project, these recommendations will be considered by both the City and County Public Works Departments during the design of future road projects in this area.

12.0 PHYSICAL IMPACTS ON WATER RESOURCES

Will the project involve the physical or hydrologic alteration - dredging, filling, stream diversion, outfall structure, diking, and impoundment - of any surface waters such as a lake, pond, wetland, stream or drainage ditch? __Yes _X_No

If yes, identify water resource affected and give the MnDNR Protected Waters Inventory number(s) if the water resources affected are on the PWI. Describe alternatives considered and proposed mitigation measures to minimize impacts.

In 2006, Olmsted County began a City-DNR Cooperative Technical Partners (CTP) program and hired Barr Engineering to develop detailed studies under the flood insurance program for six streams in

Olmsted County, including Badger Run. The DNR approved the hydrologic and hydraulic modeling and resulting floodplain designation for Badger Run and the CTP study was completed in 2013. However, the new, detailed Flood Insurance Rate Maps (FIRM) that cover Badger Run have not yet been published or adopted by the City and Olmsted County. Adoption of the FIRM map for Badger Run is expected to occur in 2015. Until then, the existing, 1998 FIRM panel is still in effect.

The construction of the 20th St SE extension changed the designated floodplain. A Conditional Letter of Map Revision (CLOMR) was prepared for the project and a final Letter of Map Revision (LOMR) will be completed in 2014. No other projects were completed between 2007 and 2013 that involved the physical or hydrologic alteration of surface waters within the AUAR Project Area.

It should be noted that the Rochester-Olmsted Planning Department recently created a GIS layer that identifies the physical location of delineated wetlands, wetland replacement areas and development sites where wetland evaluations were conducted. This improvement in data availability will be valuable as future developments are proposed and reviewed.

13.0 WATER USE

Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?
_x_ Yes __ No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and MnDNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

The easternmost portion of the project area contains suburban development, which is a residential land use with large lots that rely on private wells and septic systems. The project area also contained older, non-City residences that were built with private septic and water, but which were on lots too small to accommodate replacement septic systems. In the late 1990's, the City began a project to extend City water and sewer to the older subdivisions with failing septic systems. Residents that participated in the program typically abandoned both their septic systems and their private wells once they connected to City services. At the onset of the AUAR process, the County Well Index (CWI) indicated there were approximately 450 wells located within the project area. A review of the September 2013 CWI indicates that there are now 373 active wells located within the project area. The current total represents both the abandonment of wells discussed above, as well as the installation of new wells that accompany new suburban development residential construction.

There have been no new public water supply wells installed in the AUAR Project Area between 2005 and 2013 and the wellhead protection areas (i.e., the one year and the fifty-year time of travel zones and the Drinking Water Supply Management Areas) remain unchanged. Wells 33, 39 and 72 each have a MnDNR Water Appropriation Permit. No new wells are planned for this area in the near future. In addition to having a Wellhead Protection Plan and Water Conservation Plan for its municipal wells, RPU is in the process of developing a water sustainability plan for the City.

From January 2006 through December 2013, 57 water main segments totaling 1,732.33 linear feet have been installed. Additionally, 227 water laterals have been installed, totaling 12,054.18 linear feet. The extension of municipal water services has resulted in 75 new water line connections in the project area during this timeframe.

No new water towers have been constructed in this area since 2001. As the easterly portions of the project area develop, additional water storage will be required. A ground storage reservoir (approximately 1,000,000 gallon capacity) is planned for the hillside across 20th Street SE from the former Boy Scout Camp (Camp Kahler), but a construction date has not been forecast. The reservoir would be connected to the main served from the pressure reducing station on 20th Street SE near Marion Road, and would serve the east and north portions of the project area through a trunk main extending east along 20th Street SE and north along 42nd Avenue SE as this area develops. Some of the lower elevation areas north of TH 14, west of 50th Avenue, and east of the Sunnydale Subdivision could also be served by this reservoir. The reservoir would also serve areas along Marion Road through a trunk main extending south from 20th Street SE along 40th Avenue SE. This main would connect at 30th Street SE and Marion Road with a planned trunk water main extending east from the planned pressure reducing station at 30th Avenue SE along Pinewood Road and 30th Street SE, thereby creating a looped main serving the entire southeast portion of the project area. Rochester Public Utilities anticipates that at least one additional water supply well will be needed to serve the project area if full build out occurs. In order to provide water service to the approximately one square mile area east of 40th Avenue SE and above an elevation of 1,140 feet, a smaller water tower and/or booster station would be required.

14.0 WATER-RELATED LAND USE MANAGEMENT DISTRICTS

Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? _x_ Yes __ No

If yes, identify the district and discuss project compatibility with district land use restrictions.

There is not a federally listed wild or scenic river in the project area. The water-related land use management districts within the Project Area include the 100-year floodplain and shoreland zoning districts associated with Bear Creek and Badger Run. Tributaries to Bear Creek and Badger Run are not part of the floodplain maps or covered by the shoreland provisions of the City's zoning ordinance. There have not been any changes to the standard development procedures that require coordination with the Rochester-Olmsted Planning Department for floodplain and shoreland permits since 2002.

15.0 WATER SURFACE USE

Will the project change the number or type of watercraft on any water body? __ Yes _x_ No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses. Not applicable, as per Environmental Quality Board guidance.

16.0 EROSION AND SEDIMENTATION

Give the acreage to be graded or excavated and the cubic yards of soil to be moved: Not applicable, as per EQB guidance **acres;** Not applicable, as per EQB guidance **cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.**

There has been no change regarding the location of steep slopes or highly erodible soils or the anticipated types of earthmoving needs associated with new and future development. Since the 2002 AUAR, the MPCA has strengthened its construction storm water permit program to include sites under 5 acres. Additionally, as a function of Rochester's Municipal Separate Storm Sewer System (MS4) permit program that was instituted in 2003, City employees regularly inspect construction sites to insure

adequate installation and maintenance of erosion and sediment control measures. Additionally, several enforcement mechanisms are used to insure compliance with City grading and drainage standards. MPCA did not have additional comments on the AUAR (see Appendix B).

17.0 WATER QUALITY: STORMWATER RUNOFF

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

The City's Storm Water Management Plans applicable to this area are located at http://www.rochesterstormwater.com/permits_plans/permitplans_plans.asp. These documents provide the planning level data needed to convey, store, and treat the expected site runoff from expected development.

The City has been authorized to discharge storm water according to the terms of MPCA's MS4 permit since 2003. The current Storm Water Pollution Prevention Plan (SWPPP) outlines the City's best management practices to meet the permit requirements and it may be viewed here: http://www.rochesterstormwater.com/permits_plans/permitplans_permits.asp. The MPCA issued an updated MS4 permit on August 1, 2013 and the City submitted its application on December 30, 2013. MPCA authorized coverage to the City of Rochester under the new permit on May 8, 2014. In addition to continuing the majority of the best management practices already being implemented, the new permit has added nondegradation and volume control requirements. As a result, the City will review its existing ordinances that support the permit and develop a consolidated storm water ordinance to integrate illicit discharge, erosion and sediment control, and permanent storm water management standards to meet the new permit requirements.

The City's storm water management program requires that as new development occurs, permanent storm water management practices must be constructed that comply with the MPCA's construction storm water permit and MS4 permit. Generally, the requirements provide for conveyance, rate control, water quality treatment and water quantity management, based upon grading changes and impervious surface increases to meet MPCA and National Pollutant Discharge Elimination System requirements. Drainage reports and grading plans that detail required storm water management provisions must be submitted and approved prior to the onset of development.

From 2007 through 2013, 8028.05 linear feet of new storm sewer was installed in the AUAR Project Area. This consisted of 93 pipe segments, 28 catch basins, 15 access manholes, 39 outlets, and 33 inlets. One private storm water management pond was also constructed during this time frame within the AUAR Project Area.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

The primary receiving waters in the Project Area are Bear Creek and Badger Run. Impacts to receiving waters are controlled through the implementation of the City's storm water management requirements, as described above. This includes the provisions of the MPCA Construction Storm Water (CSW) permit, which is incorporated by reference in the City's grading review, approval, and permitting process. The City's MS4 permit also applies to new development and those requirements are addressed in the same process.

Bear Creek is listed by MPCA as being impaired due to excess turbidity. There are special requirements for temporary and permanent erosion and sediment control and storm water management in areas draining to impaired waters, as outlined in the CSW permit.

It is the obligation of the CSW permittee, not the City, to assess site suitability for volume control BMPs as they relate to specific development proposals to insure compliance with MPCA's CSW permit. Karst geologic conditions present in much of Rochester limit the potential for infiltration in many areas, particularly where drinking water supply management areas need protection. The City maintains comprehensive geographic information system (GIS) data that is available to developers and their engineers, who also conduct site-specific assessments to determine the potential for infiltration while protecting drinking water resources. Evaluation of groundwater protection areas, depth to bedrock, depth to groundwater, floodplain impacts, soil types and other constraints to infiltration must be made on a site-specific basis.

Compliance with MPCA's CSW permit is obtained via several avenues. City staff review grading plans to insure they meet City and state standards, after which grading permits are issued. City staff complete site inspections to verify compliance with erosion and sediment control standards and undertake enforcement actions, as needed. If grading and drainage violations are observed during ESC inspections, they are referred back to the City's stormwater engineer for correction or enforcement. MPCA also has an obligation to insure compliance with its own permit program.

The City maintains a Geographic Information System (GIS) to map the locations of storm water management features and store associated attribute data. As new development occurs and new features are constructed, their locations are continuously added to the GIS databases and pertinent development information is incorporated so that a comprehensive picture of flow routes is readily available.

As part of the City's MS4 permit requirements, the City inspects 20% of its outfalls per year in order to identify dry weather illicit discharges to receiving waters. It also inspects 20% of its ponds/year and 100% of its non-pond stormwater management practices (e.g., raingardens).

As part of the 2002 AUAR, a summary of the special storm water management concerns within the AUAR project area was prepared. Those special concerns are reiterated below, with an update on the status of each concern noted in italics.

- Subdistricts BC-A1.7, BC-A1.8 and BC-A1.9 all drain to the existing box culvert at 50th Avenue SE (total drainage area of 507 acres). The proposed basin BC-P1.9 is identified to reduce the peak flow rate from this area through construction of a control structure and excavation to provide detention volume for a 100-year discharge rate of 246 cfs. The final design of the basin must include an analysis of the current and ultimate downstream capacity through the residential subdivision north of Marion Road. The channel currently flows through subdivided lots that have not been developed (existing homes are greater than 10 years old). If future development requires this channel to be diverted, flows from BC-P1.9 should be channeled to BC-P1.11. A detailed hydraulic analysis will be required for BC-P1.11 to consider increased volumes and required outlet capacity. BC-P1.8 is an existing basin within BC-A1.8 and currently does not have a stabilized outlet. *This concern is no longer applicable to the City because the land use for this area was changed from Urban development to Suburban (i.e., rural residential) development and is now a County development issue.*
- BC-P1.11 is located within an existing gravel mining site. Runoff from subdistricts BC-A1.7, BC-A1.8, and BC-A1.9 must be directed to this basin by constructing a channel between the existing crossing at 50th Avenue SE and the pond normal water level. Future gravel mining in

this area should be oriented toward developing this basin and channel excavation. *There has been no new development in this area necessitating storm water management.*

- BC-P1.15 is a two-cell pond split by Marion Road. The pond was designed to operate as one pond under large storm events. The second cell west of Marion Road acts as the control for water levels in both cells. This will require an equalizer pipe between the two ponds. A 48-inch pipe was assumed in the design. Depending on specific future development of the area, both cells may be shifted to either side of Marion Road if site conditions are adequate. *There has been no new development in this area necessitating storm water management.*
- BC-P1.21 is located between Marion Road and Badger Run. Final basin design must insure that the tail water effect from the 100-year high water level of Badger Run does not cause this basin to exceed the 100-year high water level. *There has been no new development in this area necessitating storm water management.*
- BC-P1.23 is indicated as a two-cell pond split by the crossing of 30th Avenue SE due to existing land constraints in the lower portion of the drainage area. Optimum final pond design would shift both cells to one side of the road if sufficient land can be acquired at the time of construction. The stream bank and floodplain along the south side of Badger Run in this area would benefit greatly from the combined effects of stream bank restoration and pond construction. *There has been no new development affecting this area.*
- BC-P2.8 has been located north of 19th Street SE based on the current level of development in the area. An alternative location for this basin, depending on future development, would shift BC-P2.8 west to the north of 20th Street SE. The trunk storm sewer would then be realigned to direct flows from 19th Street to this basin. *There has been no new development affecting this area.*
- BC-P2.15 was designed to control runoff from subdistrict BC-A2.15. Future development north of 20th Street SE should include grading the ditch along 20th Street and channel construction to direct flows to this basin. This basin was located based on existing forested areas south of 20th Street. Future reconstruction of 20th Street should include the construction of a trunk storm sewer. *There has been no new development affecting this area.*
- Subdistricts BC-A2.16 A and B include 405 acres of land zoned for low-density residential and commercial development. Approximately 60 percent of the area in the lower portion of the watershed has been developed. A stormwater facility to control runoff rates has not been constructed at this time. Basin BC-P2.16a is proposed to decrease the discharge rate to downstream storm sewers to prevent surcharging. Future development within subdistrict BC2.16a that cannot be directed to this basin must insure that the downstream storm sewers have adequate capacities. *There has been no new development affecting this area.*
- Subdistrict SC-A1.8 contains a high-quality wetland complex located within the State Wildlife Refuge. A regional stormwater facility was not designed north of TH 14 in this area to receive runoff. Development within this area must include on-site stormwater basins to limit peak discharge rates and provide water quality wet volume for runoff from a 1.8 inch, 6-hour storm event. SC-P1.8 was designed as a two-cell pond to treat runoff from future development south of TH 14. *There has been no new development affecting this area.*

It should be noted that the new requirements contained in the 2013 CSW and MS4 permits will create a trend of more onsite storm water management and less regional ponding. If this trend develops, then the concerns outlined above will become moot points. The City is in the process of updating its storm water management plan (SWMP) and expects to complete this planning process 2015. The SWMP Update may also recommend actions that will resolve the concerns notes above. MPCA did not have additional comments on the AUAR (see Appendix B).

18.0 WATER QUALITY: WASTEWATER

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

No change.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

No change.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

The City maintains a Geographic Information System (GIS) to map the locations of sanitary sewer lines and link associated attribute data. As new development occurs and new features are constructed, their locations are continuously added to the GIS databases, along with associated attribute data, so that a comprehensive picture of flow routes is readily available. Between 2007 and 2013, 15,081.12 linear feet of sanitary sewers were installed within the AUAR Project Area. The added sanitary sewers consisted of 63 pipe segments with 65 access manholes. Ten sewer connections were made to individual homes and businesses during this same time period. These changes were anticipated in the initial AUAR.

The City Council adopted a policy in 1992 whereby the City does not require any existing home or business owner to connect to City sewer at the time it is installed to serve a particular subdivision, as long as their private septic system is in good operating condition. In subdivisions with available City sewer and/or water services, connection is required when the respective private systems fail. Transitions from septic systems to City sewer in the project area will take many years. Additionally, new interim development is allowed to proceed with septic systems until sewer service becomes available.

Homes in the Project Area that have abandoned failing septic systems are now served by the City's sanitary sewer system and the Rochester Water Reclamation Plant (RWRP). The RWRP has sufficient capacity available to serve wastewater flows generated in the Project Area through 2022. RWRP anticipates its next plant expansion will take place in about 2020. MPCA did not have additional comments on the AUAR (see Appendix B).

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

Not applicable.

19.0 GEOLOGIC HAZARDS AND SOIL CONDITIONS

a. Approximate depth (in feet) to groundwater: 0-2 minimum 10-20 average
to bedrock: 0 minimum 100 average

Describe any of the following geologic site hazards to groundwater and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions.

No change.

Describe measures to avoid or minimize environmental problems due to any of these hazards.

No change.

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

No change.

20.0 SOLID WASTES, HAZARDOUS WASTES, STORAGE TANKS

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

No change regarding per capita waste production estimates. Olmsted County, the local solid waste management authority, constructed a third combustion unit for its waste-to-energy facility in 2010. This increases their ability to manage solid waste through incineration, save landfill space, and increase energy production. Currently, nine hauling companies collect municipal solid waste within the County (an increase of four companies since 2006).

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

No change.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

No change.

21.0 TRAFFIC

Parking spaces added: Not applicable, as per Environmental Quality Board guidance. **Existing spaces (if project involves expansion):** Not applicable, as per Environmental Quality Board guidance. **Estimated total average daily traffic generated:** Not applicable, as per Environmental Quality Board guidance. **Estimated maximum peak hour traffic generated (if known) and time of occurrence:** Not applicable, as per Environmental Quality Board guidance.

Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

The Rochester-Olmsted Council of Governments (ROCOG) completed an update to its Long Range Transportation Plan in August 2010. The 2040 Plan can be viewed at: http://www.co.olmsted.mn.us/planning/rocog/lrtp/Pages/default.aspx. Chapter 4 contains environmental planning considerations, particularly those related to the County's Early Environmental Project Development activities that are conducted under the auspices of the County's Corridor Preservation Program.

As part of the current ROCOG Plan, traffic volumes (measured as average daily traffic counts or ADTs) were newly modeled. The 2010 ROCOG data shows that the traffic in the study area shows some level of growth on the collector and arterial roads, consisted with traffic growth in the larger Rochester area. Table I-4 below compares modeled traffic volumes for the last three travel demand model base years.

TABLE I-4
CHANGES IN TRAFFIC VOLUMES
Using Average Daily Traffic Counts (ADTs)

Street Segment	2002 ADTs	2006 ADTs	2010 ADTs
Pinewood Road and 30th Ave. SE	2,000	Not modeled*	1,785
Marion Road from Pinewood Road to 22nd St. SE	6,200	4,450	6,035
Marion Road from Park Lane SE to 22nd St. SE	7,100	6,000	7,150
Marion Road from Eastwood Road to Park Lane SE	13,400	12,800	13,610
Marion Road from TH 14 to Eastwood Road	15,900	Not modeled*	21,425
TH 14 from 11th Ave. SE to UCR Drive	21,700	21,300	27,900
TH 14 from UCR Drive to 30th Ave. SE	15,300	16,700	12,900
TH 14 from 30th Ave. SE to 36th Ave. SE	13,000	13,000	14,500
TH 14 from 36th Ave. SE to 50th Ave. SE	11,700	10,200	11,930
Eastwood Road from Marion Road to Harbor Drive SE	3,950	5,600	3,550
Eastwood Road from Harbor Drive SE to 40th Ave. SE	280	1,000	this segment no longer exists
40th Ave. SE	1,800	2,600	3,110
20th St. SE from Marion Road to 42nd Ave SE	2,500	1,800	1,550
20th St. SE from 42nd Ave. SE to 50th Ave. SE	650	640	650
50th Ave. SE	3,350	3,600	3,100

Note: This modeling was completed prior to the opening of the 20th St SE extension in fall 2011.

The City completed intersection analyses at 20th St SE and Marion Rd SE and at 20th St SE and 11th Av SE as part of the 20th St Extension Project (from 11th Ave SE to Marion Rd). That data, in conjunction with the road skew at the Marion Rd intersection resulted in a decision to install traffic signal at both intersections.

No changes to the transit system have been made for this area between 2007 and 2013. This area is served by Routes 4 and 17, as seen here: http://www.rochesterbus.com/citylines/routes/routes_main.htm. The City revised Routes 4 and 4MD in 2014 to better serve the Rose Harbor neighborhood.

In 2009, the City adopted a "Complete Streets" policy to integrate opportunities to enhance the safety, convenience, and comfort of residents and the traveling public while promoting physical activity and quality of life. There are no specific outcomes at this time as they relate to the AUAR area.

22.0 VEHICLE-RELATED AIR EMISSIONS

Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

No change.

23.0 STATIONARY SOURCE AIR EMISSIONS

Not applicable, as per Environmental Quality Board guidance.

24.0 DUST, ODORS, NOISE

Will the project generate odors, noise or dust during construction or during operation? __Yes _X_No

> **If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)**

No change with respect to construction noise; the City's noise ordinance (Ch. 85) is still in effect. Noise walls were constructed as part of the 20th St SE extension project along the south side of 20th St SE between 11th Ave SE and Willow Creek.

25.0 SENSITIVE RESOURCES

Are Any of the Following Resources on or in Proximity to the Site?

a. **Archaeological, historical or architectural resources? _x_Yes __No**
b. **Prime or unique farmlands or land within an agricultural preserve? _x_Yes __No**
c. **Designated parks, recreation areas or trails? _x_Yes __No**
d. **Scenic views and vistas? _x_Yes __No**

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

25.1 Archeological, Historic, and Architectural Resources

The City of Rochester did not conduct any cultural resource surveys within the AUAR Project Area between 2007 and 2013. A coordination letter was sent to the State Historic Preservation Office (SHPO) to determine if any state or national historic register listings had been added, however. In their response, they listed one archaeological site (the Trapp Mounds) that had been addressed in the initial AUAR; no urban development has occurred in that area. SHPO also identified 4 historic properties in their response. The Marion Town Hall was addressed in the initial AUAR and no changes to that property have occurred. They also listed two properties that are in the township section just east of and outside of the AUAR project area (the Markwardt barn and the Co. Hwy 19 school). The fourth property, the Armory, was a new listing within the project area. The Armory existed at the time of the initial AUAR and there has not been any development affecting that structure since 2002. None of the sites presented by SHPO have been listed in or determined to be eligible for listing in the National Register of Historic Places. A copy of SHPO's response letter is contained in Appendix B.

25.2 Prime or Unique Farmlands

A very small portion of the project area is within the resource (agricultural) protection areas identified in the *Olmsted County General Land Use Plan*. This area had been in the 50-Year Urban Reserve Area at the time of the last update of this AUAR, but was added to the Resource Protection area in 2011 due to the highly unlikely nature of services being extended to this area. The actual use of the land, however, was and continues to be agricultural in nature. Cropland cover type decreased from 2007 to 2013 by 84 acres; none of which are classified as prime or unique farmlands.

25.3 Designated Parks, Recreation Areas, or Trails

At the time of the 2002 AUAR, the City's *Parkland Acquisition Plan* anticipated that it would receive the title to Parkside Park from Olmsted County. The County has transferred title to the City for Parkside Park and it continues to be used as a park.

With new development, parkland is dedicated to the City in conjunction with new residential development. Between 2007 and 2013, there was no new residential development, so no new parkland was dedicated to the City as a result of the parkland dedication ordinance. During the extension of 20th St SE in 2011, the City mitigated the loss of a portion of Kepp Park by acquiring a 14.836 parcel lying on the eastern boundary of the Jean and Carl Frank Canine Park and Bear Creek bike trail and on the southern boundary of Kepp Park. The NW corner of this parcel is also adjacent to the SE corner of Bear Creek Park and immediately north of a City parcel acquired for storm water management that is retained as open space. There are no current plans to construct any active recreational features on this new parcel and it is being retained as open space and wildlife habitat.

The only new bike/pedestrian trails to be added within the AUAR Project Area between 2007 and 2013 were those constructed adjacent to the 20th St SE extension in 2011.

The total amount of land permanently set aside as park or open space since the 2002 AUAR is 25.7 acres.

The City's Parkland Dedication Ordinance was adopted in May 1999 and the *Parkland Acquisition Plan* was developed in August 1999. No substantive updates to either the Ordinance or the *Plan* have been made since that time. When the 2002 AUAR was prepared, the Rochester Park and Recreation Department staff anticipated that a *Parkland Acquisition Plan* update would be prepared within five years to identify future park needs in the AUAR project area. Since that time, Park and Recreation Department staff have determined that updates of the *Parkland Acquisition Plan* are not warranted due to the

consistency and adequacy with which the parkland dedication requirements have been met with each new development. There will be a review of the *Parkland Acquisition Plan* within the next five years that will include assessing connectivity to open spaces throughout the City.

Additionally, the Public Works Department staff require that land be set aside, either in public or private ownership, for storm water management purposes through acquisition or dedication, providing for additional open space. Where feasible, storm water management lands are located near parklands and protected wetlands in order to create or extend environmental corridors. No new public storm water ponds were constructed between 2007 and 2013 in the AUAR areas, so no additional lands were acquired for management by Public Works.

As part of the 20th St. SE extension project, the City acquired two parcels totaling 43.9 acres that will be retained as permanent open space.

25.4 Scenic Views and Vistas

No changes.

26.0 ADVERSE VISUAL IMPACTS

Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? __Yes _x_No

If yes, explain.

No change.

27.0 COMPATIBILITY WITH PLANS

Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? _x_Yes __ No.

If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

There has been no change regarding compatibility with the City's various plans that constitute its comprehensive plan, which comply with the requirements set out in MN Rules 4410.3610, subp. 1. See earlier Sections to identify the dates of updates for specific plans. In the 2002 AUAR, the Orderly Annexation Plans for the AUAR Project Area were identified; annexations in the Orderly Annexation areas have been completed. The Rochester-Olmsted Planning Department initiated a project in 2014 to update the City's comprehensive plan. It is expected that this project will be completed in late 2015 or early 2016.

28.0 IMPACT ON INFRASTRUCTURE AND PUBLIC SERVICES

Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project?_x_ Yes ___ No.

If yes, describe the new or additional infrastructure or services needed.

There have not been any unexpected changes associated with plans for new transportation, infrastructure, schools, or emergency services. As expected and as discussed in prior Sections, infrastructure has expanded with new development.

29.0 CUMULATIVE IMPACTS

No change.

30.0 OTHER POTENTIAL ENVIRONMENTAL IMPACTS

If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

No change.

31.0 SUMMARY OF ISSUES

List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

No change.

RGU CERTIFICATION.

No Change.

PART II – MARION ROAD TRUNK SANITARY SEWER PROJECT AUAR MITIGATION PLAN UPDATE #2

The 2002 AUAR and its Mitigation Plan were adopted by the Rochester City Council on June 17, 2002. The Mitigation Plan specified the measures, institutional controls, and oversight authority for each issue or feature receiving unacceptable development impacts.

Table 2-1 replicates the 2002 Summary of Mitigation Measures and adds an assessment of implementation progress for each measure. Provisions that take into account protection of species and habitat within the riparian corridors have also been added for clarification. Sections in the 2002 AUAR that did not necessitate mitigation are absent from Table 2-1.

An assessment of mitigation implementation indicates that, in general, implementation is proceeding as planned, in accordance with local, state, and federal regulations. However, changes in mitigation approach since 2002 happened in the following areas. It is believed that the changes noted are equivalent to or better than the respective mitigation concepts envisioned in 2002.

1. Creation of a unique database to track changes within the AUAR Project Area was not needed, as anticipated. Instead, staff learned that databases already developed within the City's Geographic Information System (GIS) could provide this function.
2. A stewardship approach to protection within the Decorah Edge geologic setting was supplanted with a more stringent ordinance approach.
3. A stewardship approach to evaluation of aggregate resources was not needed because market forces, via the reconstruction of TH 52, drove this effort.
4. The approaches to evaluate and address traffic issues that were envisioned at the time the AUAR was prepared were supplanted by a comprehensive transportation planning process that culminated with an updated Transportation Plan in 2005, 2007, and 2010.
5. Instead of being shared universally with all property owners in the AUAR Project Area, distribution of AUAR data happens on a development by development case, via the development review process, when property owners are most receptive to understanding development limitations and protection options.

As discussed in Section I, the Park and Recreation Department may be updating its Parkland Acquisition Plan within the next five years. The City, through multiple departments, has successfully preserved a significant amount of parkland and open space through its existing land acquisition methods; therefore, future acquisition planning is at the discretion of the Park and Recreation Department. The City's Park and Recreation Department anticipates completing a strategic planning process within the next two years and it is anticipated that a Parkland Acquisition Plan will evolve from this effort. No other changes have occurred since 2002 that necessitate the adoption of additional mitigation measures or the modification of other existing measures. Therefore, replication of the full text from the 2002 Mitigation Plan will not be incorporated.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
LAND USE - TRANSITIONAL LOT SIZE/DEVELOPMENT DENSITIES (potential land use conflicts when new development at urban densities is proposed adjacent to existing large lot residential development).	Mitigation relates to lot size requirements (development density) that guide compatibility between proposed development adjacent to developed areas.	The City and county have policies that encourage context-sensitive design when planning subdivisions adjacent to existing development: • *City of Rochester Code of Ordinances (Sec.64.111),* • *Olmsted County General Land Use Plan, and* • *County Zoning Ordinances.*	Rochester-Olmsted Planning Department as part of the development review process.	Implemented, as required by local regulations.
LAND USE - DEVELOPMENT DENSITY	Require developers to submit electronic plats in CAD, Micro Station, GIS or other format compatible with the City's software requirements. City will develop a database that records the number of units (housing units or industrial/commercial square feet) in project area.	Mitigation measure implemented by this AUAR.	Rochester-Olmsted Planning Department as part of the development review process.	The City discovered that it did not need to create a new database to track AUAR Project Area changes because it already had the necessary query capabilities within its GIS databases. Tracking accomplished, as planned.
FISH, WILDLIFE, ECOLOGICAL RESOURCES – THREATENED AND ENDANGERED SPECIES (Blanding's turtle, Wood Turtle, Blue racer snake, and black redhorse fish)	The protection, avoidance, minimization, and or mitigation of impacts.	*Federal Endangered Species Preservation Act of 1973, as amended in 1978, 1982, and 1988.*	U.S. Fish & Wildlife Service (Federal T&E species lead) prior to development.	No additional federal review triggered by new developments.
		Minnesota Statutes Chapter 84.0895 and Minnesota Rules Chapter 6134.	Minnesota Department of Natural Resources Natural Heritage Program (State T&E species lead) prior to development.	• Continue maintaining the newly developed Wood Turtle nesting area in the NW portion of Kepp Park. • Continue sustaining the existing wooded riparian buffers on city parcels bordering Bear Creek and Badger Run.
		City of Rochester Code of Ordinances.	• Rochester-Olmsted Planning Department as part of the development review process. • Rochester and Olmsted County Public Works Departments, during road construction projects.	• Continue implementing wetland, floodplain and shoreland regulations. • Minimize road construction in riparian corridors, where feasible; consider bridge designs that provide riparian connectivity, and utilize wildlife protection measures to reduce wildlife road mortality.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
FISH, WILDLIFE, ECOLOGICAL RESOURCES – WILDLIFE HABITAT (Woodlands, prairie, grasslands, wetlands, etc.)	The protection, avoidance, minimization, and or mitigation of impacts.	• *City of Rochester Code of Ordinances* • *Olmsted County General Land Use Plan*	• Rochester-Olmsted Planning Department as part of the development review process. • Rochester and Olmsted County Public Works Departments, during road construction projects.	• Continue implementing wetland, floodplain and shoreland regulations. • Minimize road construction in riparian corridors, where feasible; consider bridge designs that provide riparian connectivity, and utilize wildlife protection measures to reduce wildlife road mortality.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
WATER USE - GROUNDWATER	Replace failing septic systems with City sewer and provide City water in lieu of private wells.	City WQPP to extend sanitary sewer and water service to homes and businesses with failing and substandard septic systems and wells.	Rochester Public Works as part of the WQPP.	Implemented, as planned.
	Abandon wells and septic systems upon connection to City services.	All wells abandoned will follow rules and regulations established by the MDH *(Minnesota Rules Chapter 4725).*	Rochester Public Works as part of the WQPP.	Property owners are responsible for abandoning wells as water connections are made unless they receive an MDH well maintenance permit.
		All septic systems abandoned will follow *MN Rules Chapter 7080 and Olmsted County Public Health Regulation Number 41.*		Property owners are responsible for abandoning septic systems as sanitary sewer connections are made.
	Protection of public water supply.	*Wellhead Protection Plan* is in preparation for the area.	Rochester Public Utilities Commission (lead) and Minnesota Department of health.	Rochester Public Utilities' Wellhead Protection Plan has been approved by MDH and is being implemented by RPU, as planned.
WATER USE - GROUNDWATER AND SURFACE WATER	Appropriate dewatering methods during construction projects.	Water Appropriation Permit program for dewatering due to shallow groundwater for construction projects if greater than or equal to 10,000 gallons per day or one million gallons per year.	Minnesota Department of Natural Resources prior to dewatering.	Implemented, as required by state regulations. The MPCA NPDES construction storm water permit requirements also address dewatering.
	Contracts for public projects will require the investigation and evaluation of potential dewatering impacts to adjacent shallow wells with a requirement to install temporary water service if warranted by impacts,	Project design and contracting processes.	Rochester Public Works as part of the project design and contracting process.	Implemented, as planned via incorporation into project specifications.
PHYSICAL IMPACT ON WATER RESOURCES and WATER RELATED LAND USE MANAGEMENT - WETLANDS AND THEIR ASSOCIATED SPRINGS AND SEEPS	The protection, avoidance, minimization, and or mitigation of impacts.	U.S. Army Corps of Engineers *Section 404 of the Clean Water Act Permits*	U.S. Army Corps of Engineers prior to wetland impacts.	Implemented, as required by federal regulations.
		Minnesota Wetland Conservation Act Permits, Letters of Permission and General Permits. (City Stormwater Management Plan and Comprehensive Wetland Management Plan provide technical guidance.)	Olmsted County and City of Rochester Wetland Conservation Act Local Governmental Units prior to wetland impacts.	Implemented, as required by state and local regulations, including protecting wetlands, springs and seeps in the Decorah Edge geologic setting.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
PHYSICAL IMPACT ON WATER RESOURCES and WATER RELATED LAND USE MANAGEMENT - WATER USE - FLOODWAYS, 100 YEAR FLOODPLAINS, SHORELANDS, AND FLOODPRONE AREAS	The protection, avoidance, minimization, and or mitigation of impacts.	*44 CFR 60.22-Floodprone Areas, Part C; Flood Control Permit U.S. Army Corps of Engineers.*	U.S. Army Corps of Engineers prior to impacting flood prone areas or floodplains.	Implemented, as required by federal regulations.
		Minnesota Department of Natural Resources Floodplain Management, Protected Water, and Shoreland Programs.	Minnesota Department of natural Resources prior to impacting floodplain or shoreland.	Implemented, as required by state regulations.
		• *Olmsted County Floodplain Review* • *City of Rochester Code of Ordinances. (City Stormwater Management Plan and Comprehensive Wetland Management Plan provide technical guidance.)*	Rochester-Olmsted Planning Department as part of the development review process.	Implemented, as required by local regulations.
EROSION AND SEDIMENTATIION and WATER QUALITY-SURFACE WATER RUNOFF - SOIL EROSION AND SEDIMENTATION, STREAM BANK EROSION	Grading and Erosion Control Plan preparation and review, with site ESC inspections	*City of Rochester Code of Ordinances.*	Rochester Public Works prior to development and during construction.	Implemented, as required by local regulations.
	Preparation and development of a Storm Water Pollution Prevention Program	NPDES Phase II MS4 permit due in March 2003.	Rochester Public Works and Marion Township.	Implemented, as required by state regulations. MS4 permit and SWPPP updated in 2006 and in 2014 with implementation by the County, Marion Township and the City of Rochester.
EROSION AND SEDIMENTATIION and WATER QUALITY-SURFACE WATER RUNOFF - SLOPES (GREATER THAN 18 PERCENT)	Land alteration restrictions.	*City of Rochester Code of Ordinances.*	Rochester-Olmsted Planning Department as part of the development review process.	Implemented, as required by local ordinances.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
EROSION AND SEDIMENTATIION and WATER QUALITY-SURFACE WATER RUNOFF - STORMWATER	Install local and regional ponds, storm sewers, channels, and other BMPS to protect water quality and control discharge rates to pre-development conditions.	*City of Rochester Code of Ordinances. (City of Rochester Stormwater Management Plan and Comprehensive Wetland Management Plan provide technical guidance.)*	Rochester Public Works Department prior to development.	Implemented, as required by state and local regulations.
	Preparation and development of a Storm Water Pollution Prevention Program	NPDES Phase II MS4 permit due in March 2003.	Rochester Public Works and Marion Township.	Implemented, as required by state regulations. MS4 permit and SWPPP updated in 2006 and in 2014 with implementation by the County, Marion Township and the City of Rochester.
WATER QUALITY-WASTEWATERS – WATER QUALITY	Provision of City sanitary sewer services to subdivisions with failing septic systems and new developments in the AUAR project area.	The WQPP and *City of Rochester Code of Ordinances.*	City of Rochester Public Works as part of the WQPP.	Implemented as planned and as required by local ordinances.
GEOLOGIC HAZARDS AND SOIL CONDITIONS - SINKHOLES	Avoid or minimize impact with proper engineering.	*City of Rochester Code of Ordinances.*	Rochester-Olmsted Planning Department as part of the development review process.	Implemented, as required by local ordinances.
GEOLOGIC HAZARDS AND SOIL CONDITIONS - SENSITIVITY TO GROUNDWATER CONTAMINATION (Shallow depth to bedrock)	Provide City sewer and water to subdivisions with failing septic systems and new developments in the AUAR project area.	The WQPP and *City of Rochester Code of Ordinances*.	Rochester-Olmsted Planning Department.	Implemented as planned and as required by local ordinances.
	Abandon failing wells and septic systems.	Abandonment of private wells per *Minnesota Rules Chapter 4725.* Septic systems abandoned as per *Minnesota Rules Chapter 7080 and Olmsted County Public Health Regulation No. 41.*	Rochester-Olmsted Planning Department.	Property owners are responsible for abandoning wells as water connections are made unless they receive an MDH well maintenance permit. They are also responsible for abandoning septic systems as sewer connections are made.
GEOLOGIC HAZARDS AND SOIL CONDITIONS - DECORAH-EDGE	Evaluate Decorah-Edge conditions and application of stewardship mitigation measure.	Stewardship mitigation measures implemented by this AUAR, and substantial land alteration requirements *City or Rochester Code of Ordinances Sec. 62.110.*	Rochester-Olmsted Planning Department.	Instead of utilizing the stewardship approach, the City and the County instead adopted amendments to its wetland ordinance to protect the groundwater recharge areas located in the Decorah Edge geologic setting. These include additional soil analysis requirements.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
GEOLOGIC HAZARDS AND SOIL CONDITIONS - AGGREGATE RESOURCES	Evaluate resource availability and use.	Stewardship mitigation measures implemented by this AUAR.	Rochester-Olmsted Planning Department.	Stewardship mitigation measures not implemented as planned because the re-construction of TH 52 necessitated a wide spread evaluation of available aggregate resources to find the closest and best-suited resources.
TRAFFIC - ROADWAY LEVEL OF SERVICE, CAPACITY, SAFETY	Establish Traffic Monitoring Program and apply City of Rochester Guidance for Traffic Impact Studies to identify changing conditions warranting initiation of study and project development activities and road extensions, lane additions and signal installations.	*MnDOT Work Studies Program, Olmsted County and City of Rochester Capital Improvement Programming, City of Rochester Land Development Manual, ROCOG Long Range Transportation Planning Program.*	City of Rochester, Olmsted County, Minnesota Department of Transportation, and ROCOG.	Traffic monitoring conducted in conjunction with the ROCOG 2010 Transportation Plan Update.
TRAFFIC - DEFICIENT INTERSECTION OPERATION	Addition of turn lanes and/or installation of traffic signals based on studies determining that warrants for signalization are met and that a traffic signal is the proper solution for the respective traffic deficiency.	*Minnesota Manual on Uniform Traffic Control Devices (MMUTCD).*	Minnesota Department of Transportation, City of Rochester, and Olmsted County.	Intersection operations evaluated in conjunction with the ROCOG 2010 Transportation Plan Update.
TRAFFIC - INSUFFICIENT PEAK HOUR ROADWAY CAPACITY	Consider establishment or enhancement of transit service to reduce peak hour passenger vehicle travel and establishment of bus pull-out areas.	City of Rochester Transit Coordination Program.	Federal Transit Administration, City of Rochester, Rochester Olmsted Council of Governments, and MnDOT.	No transit improvements needed between 2007 and 2013, but planning has been completed and the City anticipates revising Route 4 in 2014 to better serve the Rose Harbor neighborhood.
	Evaluation of roadway upgrade based on traffic monitoring results.	ROCOG Long Range Transportation Planning Program	ROCOG	Roadway upgrades evaluated in conjunction with the ROCOG 2010 Transportation Plan Update.
TRAFFIC - BICYCLE AND PEDESTRIAN USER SAFETY AND MOBILITY	Require trails and sidewalks to be developed with all new roadway and development projects consistent with City and County policy.	City of Rochester and Olmsted County Capital Improvement Programming for trail projects; City of Rochester Land Development Manual, and ROCOG Long Range Bicycle Plan.	City of Rochester, Olmsted County, Rochester Olmsted Council of Governments, Minnesota Department of Transportation, and ROCOG.	Bicycle and pedestrian needs evaluated in conjunction with the ROCOG 2010 Transportation Plan Update.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
NEARBY RESOURECES - PARKS, RECREATION AREAS, OR TRAILS	Consideration of parkland acquisition as noted in the Stewardship mitigation measures identified this table. Dedicating parkland from each development proposal. Considering dedication of natural resource features. Updating the *Parkland Acquisition Plan* within five years to identify future park needs in the AUAR project area, particularly significant segments of environmental corridors with consideration of cooperative purchases. Updating *City Plan* map to delineate environmental corridors in the USAs/URAs.	*Land Use Plan for the Rochester Urban Service Area, City of Rochester Code of Ordinances* (Section 64.440), and the City of Rochester Park and Recreation Parkland Acquisition Plan.	City of Rochester, Olmsted County, City of Rochester Park Department.	Acquisition of parkland other than that required by the parkland dedication ordinance was considered whenever such opportunities became available. Implemented, as required by local regulations. Dedication of natural resource features was considered whenever such opportunities became available. To date, Park and Recreation Dept. staff determined that updates of the *Plan* was not warranted as anticipated due to the consistency and adequacy with which the parkland dedication requirements have been met with each new development. The *Parkland Acquisition Plan* will be updated within the next five years. The *City Plan* map was not been updated to include environmental corridors, as planned. Instead, environmental corridors were delineated as part of the storm water management planning process and added to the GIS database so they would be more universally available for multiple applications and assessments.
NEARBY RESOURECES - CULTURAL RESOURCES	City will require developer coordination with the State Historic Preservation Officer on properties with recorded high and moderate potential for cultural resources and sites with potential historical or architectural significance.	*Section 106 of the Historic Preservation Act, Minnesota Private Cemeteries Act,* City Adoption of AUAR and Mitigation Plan.	Rochester-Olmsted Planning Department. State Historic Preservation Officer.	Coordination and surveys completed on a project by project basis when required by regulations.

Table 2-1
2014 AUAR Summary of Mitigation Measures and Implementation Assessment

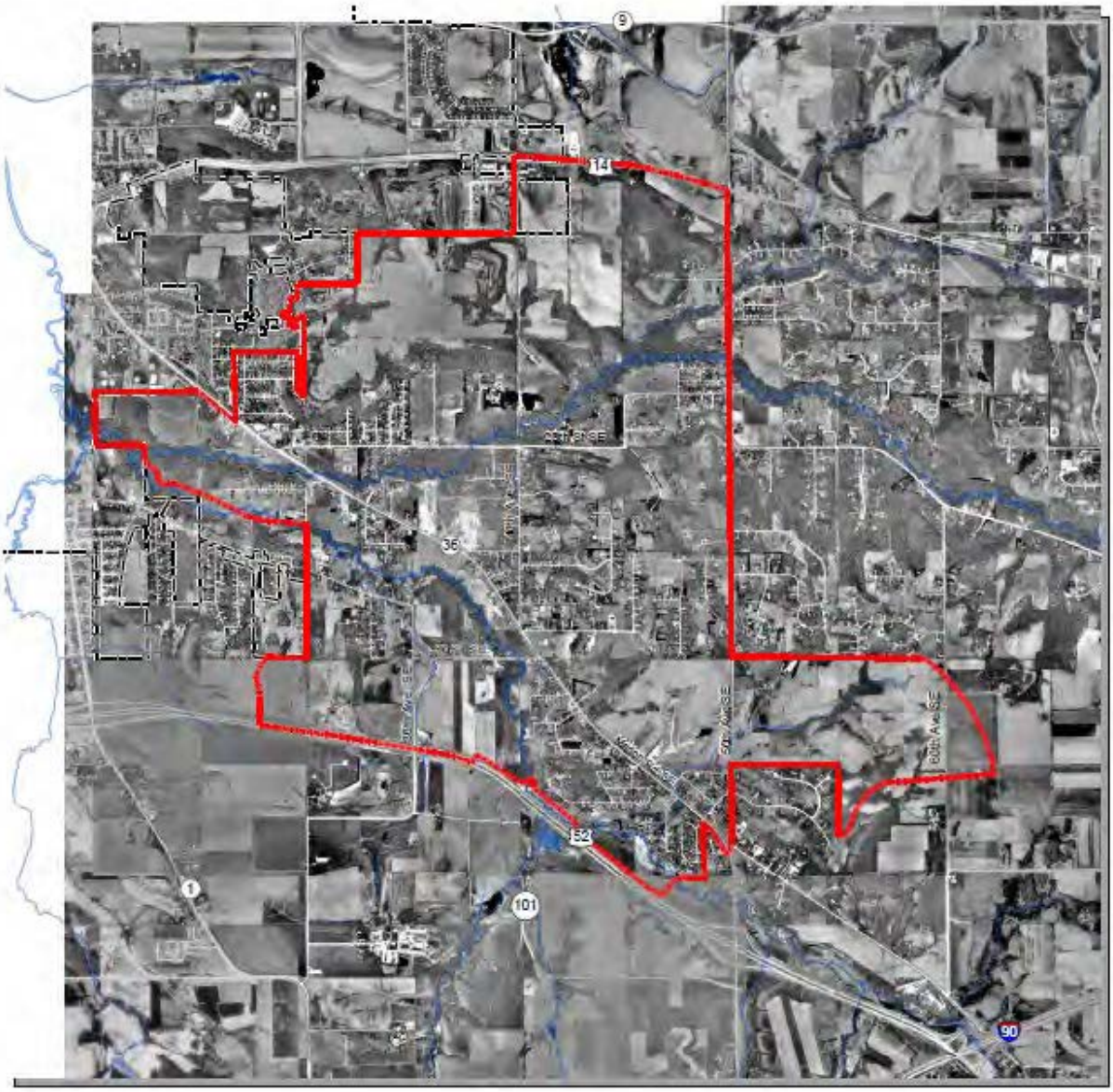
Impacted Feature	Mitigation Measure(s)	Institutional Control	Oversight Authority	Implementation Assessment
IMPACT ON INFRASTRUCTURE AND PUBLIC SERVICES	Infrastructure improvements as identified in this AUAR.	*City of Rochester Code of Ordinances, Thoroughfare Plan* by Rochester Olmsted Council of Governments, and Minnesota Department of Transportation planning.	City of Rochester, Rochester Olmsted Council of Governments Olmsted County, and Minnesota Department of Transportation.	Proceeding, as planned.
CUMULATIVE IMPACTS - DEVELOPMENT PATTERN (Development pattern and character of the area will become more urban and may affect the quality of life currently valued by many of the current residents. Vacant and/or open areas will become developed.)	Implementation of the measures identified in this table.	City Adoption of AUAR and Mitigation Plan.	Responsible parties as identified in this table.	Implemented, as planned; however, the growth rate in this area was not as rapid as anticipated.
CUMULATIVE IMPACTS - HABITAT CORRIDOR (The fairly contiguous habitat corridor along Bear Creek and Badger Run may become more fragmented as development occurs.				New development since 2002 has been in areas other than these stream corridors.
STEWARDSHIP ITEMS - NATURAL AND CULTURAL RESOURCES	Educated the community at large on benefits of environmental stewardship and share AUAR resource data with landowners of undeveloped land.	City Adoption of AUAR and Mitigation Plan.	Rochester-Olmsted Planning Department.	Completed on a development by development basis through the development review process.
	Completion of an Environmental Resource Checklist by developers to confirm understanding of AUAR data, identify applicable mitigation measures, document consistency with hypothetical development scenario, and raise awareness of stewardship opportunities.	City Adoption of AUAR and Mitigation Plan.	Rochester-Olmsted Planning Department.	Completed and in use.
	Data transfer to provide stewardship information and AUAR resource data to entities involved in the development process.	City Adoption of AUAR and Mitigation Plan.	Rochester-Olmsted Planning Department.	Completed and in use.
	Update *Parkland Acquisition Plan* to identify areas appropriate for land acquisition.	City Adoption of AUAR and Mitigation Plan and the City of Rochester *Parkland Acquisition Plan.*	Rochester Park Department	Not completed; see above.
	Update the *Rochester USA Land Use Plan Map* to delineate cultural resource sites and environmental corridors.	City Adoption of AUAR and Mitigation Plan.	Rochester-Olmsted Planning Department.	Completed via an alternative method (use of GIS databases).

APPENDIX A
Figures

City of Rochester
Minnesota

Marion Road Trunk Sanitary Sewer Project
Alternative Urban Areawide Review

ROCHESTER



Legend

Informational Items

- Rochester City Limits
- Intended AUAR Project Area (as revised)
- Parcel Boundary
- Water

Source: City of Rochester GIS
chydro96.dwg, ofl3p_01, roch0502, STXT-CL.dwg

EARTH TECH
Howard R. Green Company
Hoisington Koegler Group Inc.
Richardson Richter Associates Inc.
106 Group Ltd.

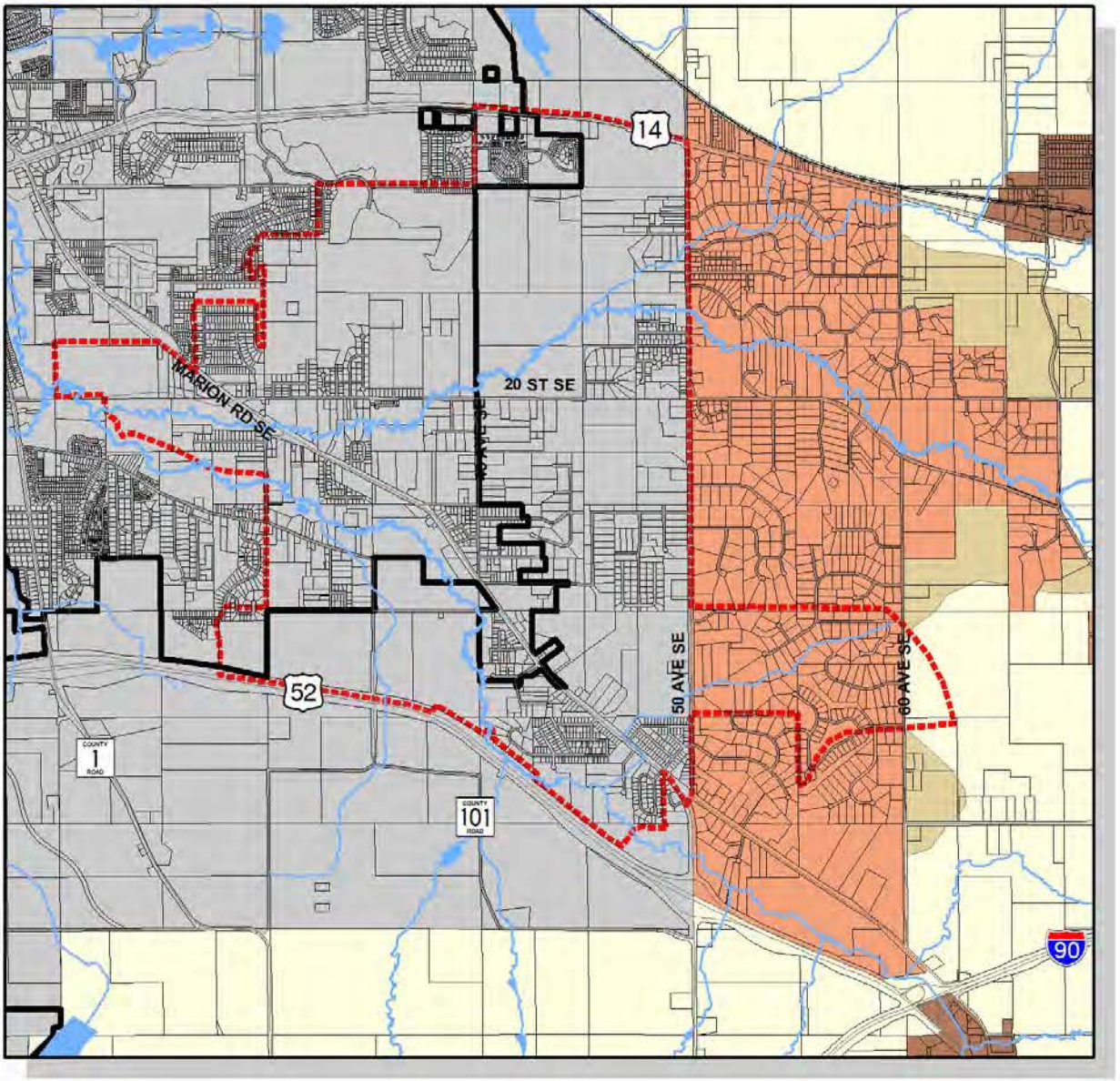
AUAR Project Area

Figure 1

City of Rochester
Minnesota

Marion Road Trunk Sanitary Sewer Project
Alternative Urban Areawide Review

ROCHESTER
Minnesota



Legend

- Rochester City Limits
- Parcel Boundary
- Roads
- Railroad
- Water
- AUAR Project Area

Olmsted County Land Use Plan - 2014

- Potential Suburban
- Suburban Development
- Resource Protection
- Suburban Mixed Use
- Urban Service Area

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EARTH TECH
Howard R. Green Company
Hoisington Koegler Group Inc.
Richardson Richter Associates Inc.
106 Group Ltd.

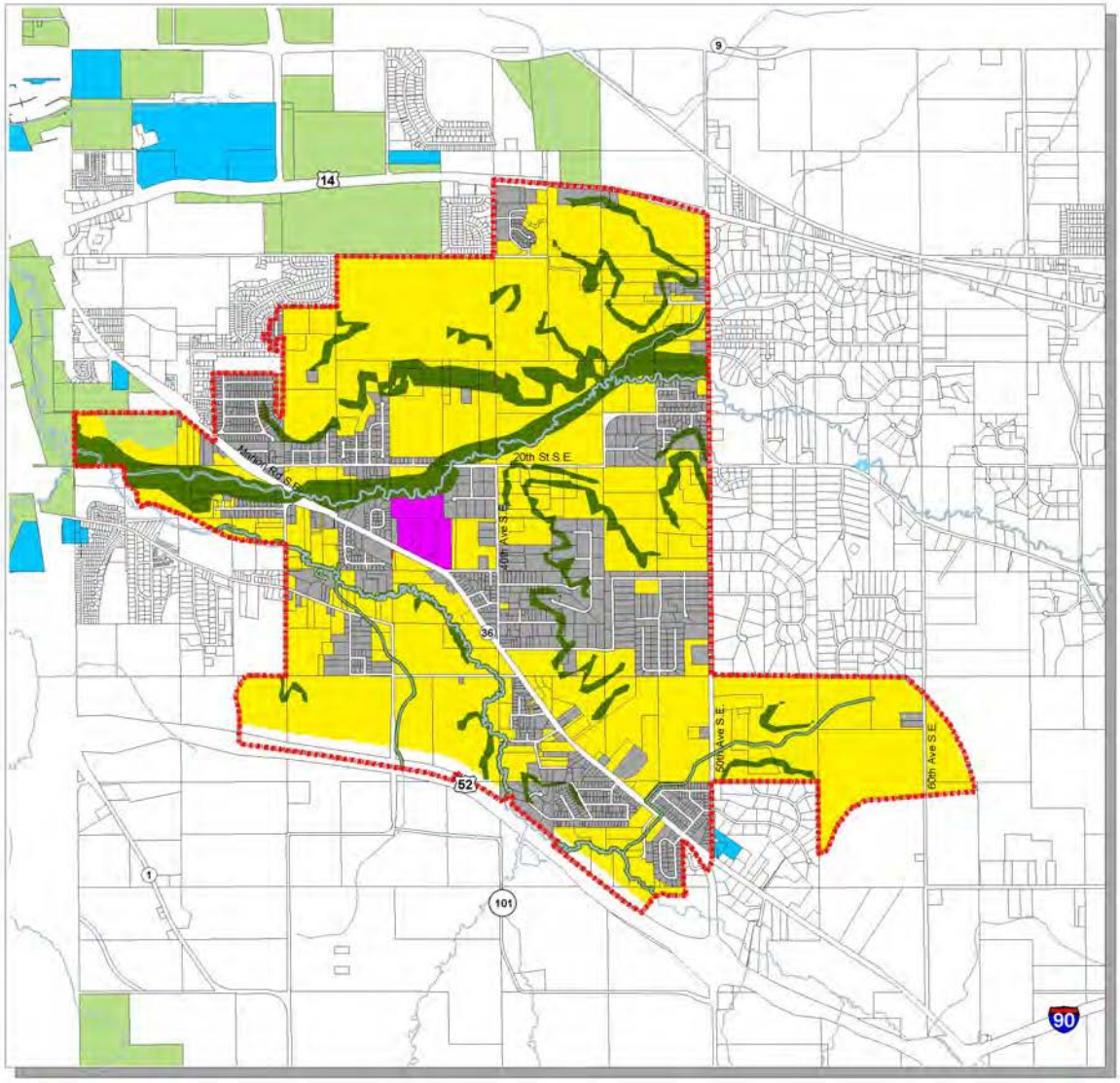
Olmsted County Land Use Plan

Figure 2

City of Rochester
Minnesota

Marion Road Trunk Sanitary Sewer Project
Alternative Urban Areawide Review

ROCHESTER
Minnesota



Legend

Informational Items

- Parks, Recreation, and Open Space - Planned and Existing
- Existing Schools
- Water
- Intended AUAR Project Area (as revised)

Hypothetical Development Scenario as it pertains to potential Environmental Impacts

- Low Density Residential (1)
- Industrial
- Parks, Recreation, and Open Space - Planned and Existing
- High Level of Constraint to Development
- Developed and/or Platted Parcels
- Unconfirmed Endangered Species

Note (1): The overall average density projected for undeveloped land in the project area is 3 units per gross acre.

Note (2): This development scenario does not replace the City of Rochester or Olmsted County Land Use Plans nor does it change the typical development process required by the City of Rochester.

Note (3): Two neighborhood commercial nodes are assumed within the project area. Exact locations are subject to more detailed planning.

0 500 1,000 2,000 Feet

N W E S

EARTH TECH
Howard R. Green Company
Hoisington Koegler Group Inc.
Richardson Richter Associates Inc.
106 Group Ltd.

"Hypothetical" Development Scenario

Figure 3

APPENDIX B
Agency Coordination Responses
(MPCA, SHPO and DNR)

Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

March 12, 2014

Ms. Barbara J. Huberty
Environmental and Regulatory Affairs Coordinator
City of Rochester Public Works Department
201 4th Street SE, Room 108
Rochester, MN 55904

Re: 20th Street SE Connection Alternative Urban Areawide Review

Dear Ms. Huberty:

Thank you for the opportunity to review and comment on the Alternative Urban Areawide Review (AUAR) for the 20th Street SE Connection Project in Rochester, Minnesota. Minnesota Pollution Control Agency (MPCA) staff has reviewed the AUAR and have no comments at this time.

We appreciate the opportunity to review this project. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this AUAR, please contact me at 651-757-2482.

Sincerely,

Kevin Kain
Planner Principal
Environmental Review Unit
Resource Management and Assistance Division

KK:bt

cc: Craig Affeldt, MPCA, St. Paul

Minnesota
Historical Society

STATE HISTORIC PRESERVATION OFFICE

February 6, 2014

Ms. Barbara Huberty
Rochester Public Works Department
201 4th Street SE, Room 108
Rochester, MN 55904-3740

RE: Marion Road Trunk Sanitary Sewer Project – 2nd AUAR Update
Marion Twp., Olmsted County

Dear Ms. Huberty:

We have received your February 3, 2014, letter regarding preparation of a second AUAR update for the Marion Road Trunk Sanitary Sewer Project. You requested a statement from our office indicating whether we know of any historic resources that have been identified since the original 2002 AUAR.

I have enclosed a list of historic structures and a list of archaeological sites that have been identified within the sections of Marion Township within the project area, as given in the reference line of your letter. You may wish to compare these with resources identified in the original AUAR. Note that none of these resources have been listed in or determined to be eligible for listing in the National Register of Historic Places.

We are limiting our reviews to specific undertakings that are funded or permitted by federal or state agencies. Please note that, in the future, to request searches of our historic resources databases, you may contact Information Coordinator Thomas Cinadr by email at thomas.cinadr@mnhs.org .

If you have any questions concerning this letter, please contact me at (651) 259-3457 or leslie.coburn@mnhs.org .

Sincerely,

Leslie Coburn

Leslie Coburn
Government Programs and Compliance Technician

Enclosures (2)

Historic Inventory Report

Property Name	Address	National Register (1)	CEF (2)	DOE (3)	SEF (4)	StReg (5)	Local (6)	TWP	Range	Sect	INVENTNUM
Count Olmsted											
City/Town Marion Twp.											
Marion Town Hall	NE corner Co. Hwy. 11 & Co. Rd. 123						☐	106	13	22	OL-MAR-003
school	off Co. Hwy. 19						☐	106	13	23	OL-MAR-004
George William Markwardt Barn	3200 60th Ave. SE						☐	106	13	23	OL-MAR-009
City/Town Rochester											
Rochester USARC	1715 Marion St. SE						☐	106	13	7	OL-ROC-370

(1) Listed in the National Register of Historic Places either individually or within a historic district

(2) CEF (Considered Eligible Finding) - determined eligible for listing in the National Register in the course of a Section 106 environmental re

(3) DOE (Determination of Eligibility) - determined eligible for listing in the National Register but not listed due to owner objection

(4) SEF (Staff Eligible Finding) - SHPO staff has determined eligible for listing in the National Register

(5) StReg - Listed in the State Register of Historic Places

(6) Local - designated as a landmark by the local Heritage Preservation Commission

Archaeology Site Report

Site Name	City/TWP	TWP	Range	Section	NRHP	CEF	SEF	DOE	StReg	Site Number
County **Olmsted**										
Trapp Mounds	Marion Twp.	106	13	4						21OLx

(1) Listed in the National Register of Historic Places either individually or within a historic district

(2) CEF (Considered Eligible Finding) - determined eligible for listing in the National Register in the course of a Section 106 environmental revie

(3) DOE (Determination of Eligibility) - determined eligible for listing in the National Register but not listed due to owner objection

(4) SEF (Staff Eligible Finding) - SHPO staff has determined eligible for listing in the National Register

(5) StReg - Listed in the State Register of Historic Places

(6) Local - designated as a landmark by the local Heritage Preservation Commission

Huberty, Barbara

From: Haworth, Brooke (DNR) <Brooke.Haworth@state.mn.us>
Sent: Tuesday, April 01, 2014 12:59 PM
To: Huberty, Barbara
Subject: DNR coordination comments on Rochester-Marion AUAR Update
Attachments: MarionAUAR2014-turtle areas.jpg

Ms. Huberty,

Per your request of February 3, 2014, the Department of Natural Resources (DNR) has reviewed the area to be encompassed by the upcoming Rochester-Marion AUAR update, as well as the 2009 AUAR Update. We submit the following comments regarding natural resources for your consideration.

Rare Species and Rare Natural Resources

A Natural Heritage Information System (NHIS) review should be conducted to identify current records of rare species and rare natural resource features that are present within the AUAR footprint, and to receive initial recommendations regarding these features from Endangered Species review staff. Minnesota's List of Endangered, Threatened, and Special Concern Species was updated in August of 2013, and incorporates a number of changes to the rare species list. The NHIS is continually updated as new information becomes available and includes current records and surveys. An NHIS review is considered valid if performed within one year of project implementation. The NHIS Data Request form and rate information can be accessed on the DNR website at http://www.dnr.state.mn.us/eco/nhnrp/nhis.html.

This information should be included in the AUAR, and potential impacts to and protection strategies regarding rare species and natural resource features should be specifically addressed. For example,
Part 11a. of the 2009 AUAR Update addresses the Joyce Park and the Marion 8 Calcareous Fens, which are native plant communities protected by state statute. The 2009 update incorporates information about the fens and requires that proposers consult with the DNR and, if necessary, submit a Fen Management Plan, for any development projects with potential impacts to these fens. This type of review should be carried forward in the next AUAR update. We also appreciate the treatment of other state-listed species in the 2009 AUAR Update. Following an updated NHIS review, this information should also be carried forward in the next update version.

Rare Turtle Species

Wood turtles (*Glyptemys insculpta*) and Blanding's turtles (*Emys blandingii*), both state-listed threatened species, are known to occur within the AUAR boundary. The 2009 AUAR Update states on page 8 that the wooded portion of Kepp Park is not planned for recreational development. We encourage you to carry this plan into the future, as the Park already contains a softball/volleyball complex and bike trail along Bear Creek. It is important to retain the riparian area that provides habitat connectivity along Bear Creek and into Badger Run. This stretch of stream is the access area to the main branch of the Zumbro River, and provides an important travel corridor to outlying areas south of Kepp Park for Wood and Blanding's turtles.

This section goes on to identify a 3.25 acre portion of Kepp Park that could be restored and managed for the benefit of wood turtles. To date this work has not been performed. During the original development of the AUAR, the DNR commented that 3.25 acres is not adequate to provide needed habitat requirements for wood turtles or Blanding's turtles. However, it would be acceptable to maintain this area as a nesting area. With the loss of the sand prairie behind the Armory, any potential nesting area in the Kepp Park area would be helpful to provide options for nesting sites. Also during the original discussions, it was mentioned that the Armory "prairie" would become soccer fields. To date this work has not been performed. We suggest, rather than developing and managing a 3.25 acre area for nesting, that a

larger, more adequate area be set aside and maintained as a natural area for wildlife, including wood turtles. (See comments below on areas identified on the accompanying map).

On page 9, the 2009 update indicates the City would attempt to purchase the parcel that is positioned at the confluence of Badger Run and Bear Creek. This is a desirable parcel that links the riparian corridor habitats. We recommend that the addition of this parcel and its retention as green space with no recreational development would be a valuable addition to the riparian corridor.

Also on page 9, the AUAR incorrectly indicates that the DNR will provide technical assistance and habitat work for treating undesirable brush in the project area. To clarify - we can provide technical assistance for the development of a management plan, but we cannot conduct the habitat work/maintenance for the City of Rochester.

Comments for Accompanying Map

On the accompanying map, dots indicate wood turtle use of the Badger Run area. This data was collected in 2004 and 2005 on a few individuals. While the number of telemetered turtles was not significant, it gives a good indication of how wood turtles use this area. By following telemetered turtles, we were able to find additional turtles, so we believe this area currently has a small, breeding population of wood turtles. This is significant given the few locations of wood turtles on southeast Minnesota rivers.

The area on the map outlined in **green** is where Badger Run and Bear Creek join. The riparian corridor is identified under the National Wetlands Inventory as an area that is seasonally flooded and also a shrub swamp. This is ideal habitat for both wood and Blanding's turtles. Wood turtles have been found using both watercourses, while Blanding's turtles have been documented further east along Bear Creek, and into Chester woods. We recommend that no further suburban/urban development occur in the green outlined area. We also recommend minimal recreational development, such as unpaved trails, instead of ball fields, which are very disruptive to the landscape ecology.

The **dark orange area** outlined on the map follows Bear Creek. Portions of this corridor are also described as seasonally flooded. A sand prairie occurs in the NE portion of the outlined area. While not confirmed, this area could be potential nesting habitat for Blanding's turtles. Wood turtles were also found to use this area. We recommend that this riparian corridor remain intact with minimal urban/suburban development. It is important that designs for the bridge at 20th Street SE over Bear Creek incorporate wildlife passages on both sides of the stream to maintain habitat connectivity of this riparian corridor. Any road expansions should remain outside of the riparian corridor, and also incorporate wildlife protection measures where possible to reduce road mortality.

The **blue outlined area** follows Badger Run. This is the most valuable area within the AUAR footprint for wood turtle habitat, and we know that this area is used extensively by this species. Portions of this area are described as seasonally flooded, shallow marsh and shrub swamp. There is a larger woodland area in the middle of the outlined area, with a high quality sand prairie adjacent. Gravid females have been found in this area, which is likely the only suitable, sizable nesting area remaining in the river corridor. We suggest that this area, if acquired by the City, could be preserved as sand prairie for nesting, and used as parkland mitigation. We recommend that no suburban or recreational development occur in this area.

The **light orange area** continues to follow Badger Run. Portions of this area are described as seasonally flooded, shrub swamp, wood swamp, and shallow open water. Wood turtles also used this area extensively and were found overwintering in the creek here. Blanding's turtles have been observed crossing Marion Road near the junction of Hwy 52 , traveling to the wetland/sedge meadow complex on the east side. This corridor provides important habitat connectivity, and we recommend preserving this corridor from development.

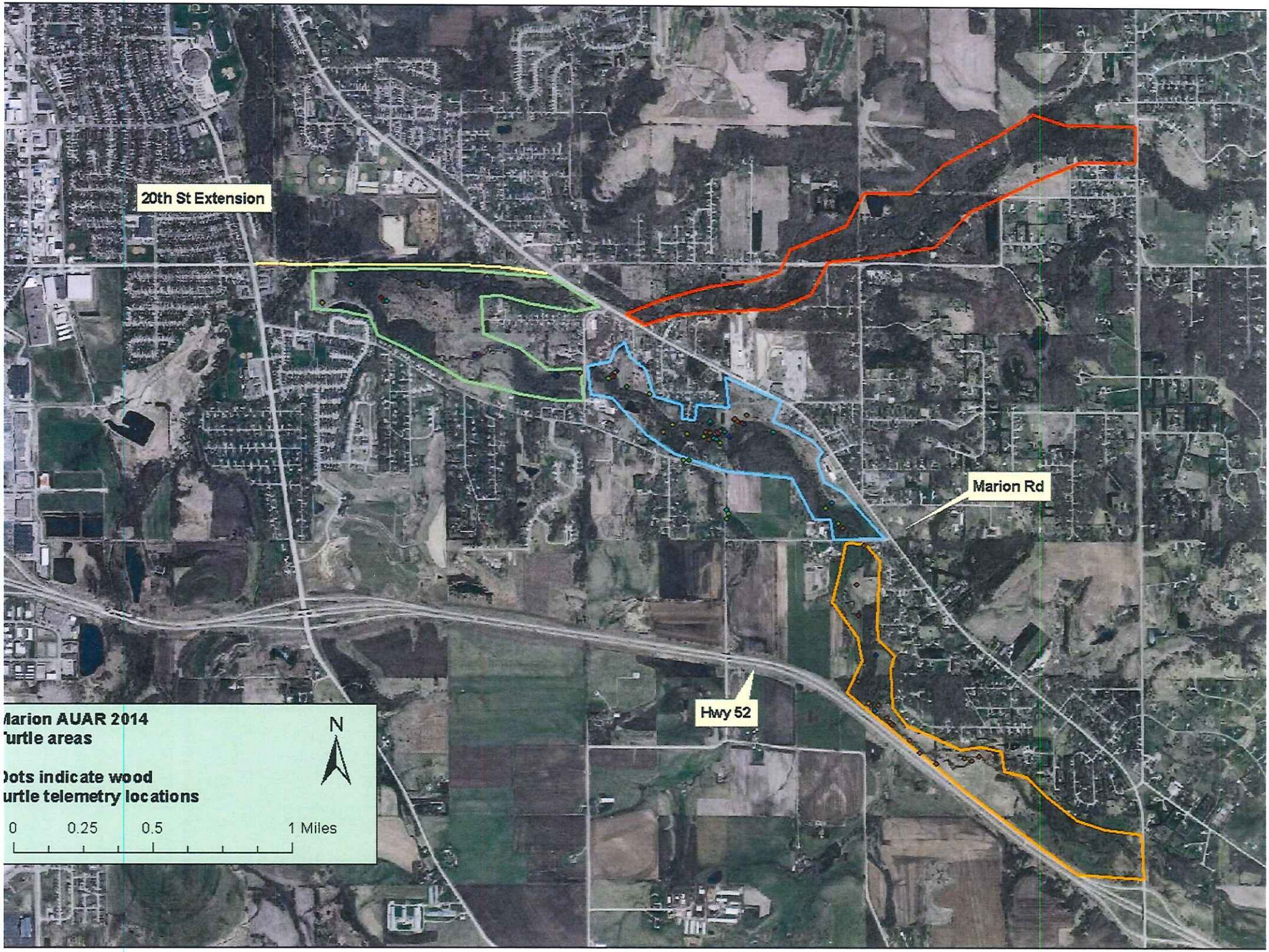
At the very least, all riparian areas within the areas outlined on the map should retain a 350' buffer on both sides of the watercourses. This will allow for travel corridors for a variety of wildlife, including turtles. However, if some upland habitat within the stream corridor is not retained for foraging and nesting, the riparian corridor alone is not sufficient to

retain a breeding population of wood or Blanding's turtles. Thus, it is highly recommended that as much of the surrounding habitat as possible be retained in natural areas.

Thank you for the opportunity to provide comments to assist in the preparation of the next AUAR update. Please feel free to call me with any questions regarding these comments.

Sincerely,

Brooke Haworth
Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road, St. Paul, MN 55106
Phone: 651-259-5755
Email: Brooke.haworth@state.mn.us


20th St Extension
Marion Rd
Hwy 52
Marion AUAR 2014
Turtle areas
Dots indicate wood
turtle telemetry locations
N
0
0.25
0.5
1 Miles